

REMARKS/ARGUMENTS

Claims 25 and 27-48 are pending, claims 46-48 having been withdrawn from consideration. By this Amendment, the specification and claims 25 and 44 are amended. Support for the amendments to claims 25 and 44 can be found, for example, in the present specification at page 7, lines 5 to 9 and page 10, lines 19 to 23, and in original claims 25 and 44. No new matter is added. In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

Withdrawn Claims

For the reasons set forth below, Applicants submit that all pending claims presently subject to examination are in condition for allowance. Because withdrawn claims 46-48 depend from, and thus recite all features of, allowable claims, rejoinder and allowance of claims 46-48 are respectfully requested.

Objection to the Specification

The Office Action objects to the title as being misdescriptive. By this Amendment, the title is amended to obviate the objection. Accordingly, reconsideration and withdrawal of the objection are respectfully requested.

Rejection Under 35 U.S.C. §112, Second Paragraph

The Office Action rejects claims 35 and 44 as indefinite under 35 U.S.C. §112, second paragraph. Applicants respectfully traverse the rejection.

The Office Action asserts that claim 35 is indefinite for reciting "using the method according to claim 25 in combination with a different depositing method." *See* Office Action, page 3. In particular, the Office Action asserts that the method of claim 25 could be used in

combination with any other method. *See* Office Action, page 3. One of ordinary skill in the art could readily discern which methods could be employed in combination with the method of claim 25, and the claim further narrows claim 25, by requiring that two deposition methods be employed – the metes and bounds of the claim are clear. The Office Action appears to object not to the clarity of claim 35, but rather to its breadth. As is well settled, breadth of a claim is not to be equated with indefiniteness. *See* MPEP §2173.04 (citing *In re Miller*, 169 U.S.P.Q. 597 (C.C.P.A. 1971)).

By this Amendment, claim 44 is amended to obviate the rejection.

For the foregoing reasons, claims 35 and 44 are definite. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

#### Rejections Under 35 U.S.C. §103

##### A. Rzad, Barnes and Yang

The Office Action rejects claims 25, 27-29, 32-36 and 39-44 under 35 U.S.C. §103(a) over U.S. Patent No. 5,156,882 to Rzad et al. ("Rzad") in view of U.S. Patent Application Publication No. 2005/0098115 to Barnes et al. ("Barnes") and U.S. Patent No. 6,110,544 to Yang et al. ("Yang"). Applicants respectfully traverse the rejection.

Claim 25 recites "[a] method for depositing a thin film on a substrate, the method comprising: heating the substrate at a temperature below 250°C; introducing a pre-vaporized reactive titania CVD precursor into a gas flow flowing through a coating region; applying energy to generate an atmospheric pressure glow discharge plasma in the coating region and using the atmospheric pressure glow discharge plasma as a major source of reaction to deposit the thin film on the substrate heated at the temperature below 250°C; and performing a post treatment on the thin film using an atmospheric glow discharge plasma to modify properties and structure of the thin film; wherein a water vapor level is controlled to be from

0.05% to 1%" (emphasis added). Rzad, Barnes and Yang do not disclose or suggest such a method.

By this Amendment, claim 25 is amended to require that a water vapor level is controlled to be from 0.05% to 1%. The Office Action indicates that none of the cited references discloses requiring such a water vapor level. *See* Office Action, page 5. As none of the cited references discloses or suggests that a water vapor level is controlled to be from 0.05% to 1%, the combination of references fails to disclose or suggest each and every feature of claim 25.

As explained, claim 25 would not have been rendered obvious by Rzad and Barnes. Claims 26-29, 32-36 and 39-44 depend from claim 25 and, thus, also would not have been rendered obvious by Rzad and Barnes. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Rzad, Barnes, Yang and Horiike

The Office Action rejects claims 30 and 31 under 35 U.S.C. §103(a) over Rzad in view of Barnes, Yang and U.S. Patent No. 5,185,132 to Horiike et al. ("Horiike"). Applicants respectfully traverse the rejection.

For the reasons discussed above, Rzad, Barnes and Yang fail to disclose or suggest each and every feature of claim 25. Horiike fails to remedy the deficiencies of Rzad, Barnes and Yang. Horiike is cited for its alleged disclosure of a thermal control system. *See* Office Action, page 7. However, Horiike, like Rzad, Barnes and Yang, fails to disclose or suggest that a water vapor level is controlled to be from 0.05% to 1%. Accordingly, the combination of references fails to disclose or suggest each and every feature of claim 25.

As explained, claim 25 would not have been rendered obvious by Rzad, Barnes, Yang and Horiike. Claims 30 and 31 depend from claim 25 and, thus, also would not have been

rendered obvious by Rzad, Barnes, Yang and Horiike. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

C. Rzad, Barnes, Yang and David

The Office Action rejects claims 37 and 38 under 35 U.S.C. §103(a) over Rzad in view of Barnes, Yang and U.S. Patent No. 6,197,120 to David ("David"). Applicants respectfully traverse the rejection.

For the reasons discussed above, Rzad, Barnes and Yang fail to disclose or suggest each and every feature of claim 25. David fails to remedy the deficiencies of Rzad, Barnes and Yang. David is cited for its alleged disclosure of employing electrodes formed from a material that reduces heat generation. *See* Office Action, page 7. However, David, like Rzad, Barnes and Yang, fails to disclose or suggest that a water vapor level is controlled to be from 0.05% to 1%. Accordingly, the combination of references fails to disclose or suggest each and every feature of claim 25.

As explained, claim 25 would not have been rendered obvious by Rzad, Barnes, Yang and David. Claims 37 and 38 depend from claim 25 and, thus, also would not have been rendered obvious by Rzad, Barnes, Yang and David. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

D. Rzad, Barnes, Yang and Takano

The Office Action rejects claim 45 under 35 U.S.C. §103(a) over Rzad in view of Barnes, Yang and U.S. Patent No. 6,828,235 to Takano ("Takano"). Applicants respectfully traverse the rejection.

For the reasons discussed above, Rzad, Barnes and Yang fail to disclose or suggest each and every feature of claim 25. Takano fails to remedy the deficiencies of Rzad, Barnes

and Yang. Takano is cited for its alleged disclosure of employing flushing zones. *See* Office Action, page 8. However, Takano, like Rzad, Barnes and Yang, fails to disclose or suggest that a water vapor level is controlled to be from 0.05% to 1%. Accordingly, the combination of references fails to disclose or suggest each and every feature of claim 25.

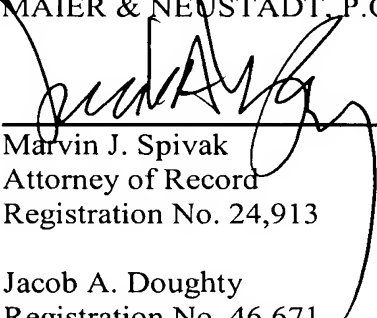
As explained, claim 25 would not have been rendered obvious by Rzad, Barnes, Yang and Takano. Claim 45 depends from claim 25 and, thus, also would not have been rendered obvious by Rzad, Barnes, Yang and Takano. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

#### Conclusion

For the foregoing reasons, Applicants submit that claims 25 and 27-48 are in condition for allowance. Prompt reconsideration and allowance are respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



---

Marvin J. Spivak  
Attorney of Record  
Registration No. 24,913

Jacob A. Doughty  
Registration No. 46,671

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413-2220  
(OSMMN 08/07)